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EXAMINER

MCCLELLAND, KIMBERLY KEIL

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/507,927	Applicant(s) TATEISHI, TOMOMI	
	Examiner KIMBERLY K. MCCLELLAND	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant is reminded they need to explicitly point out where support for all the newly claimed features comes from as required by MPEP 714.02 and 2163.06. See 37 CFR 1.111.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 13, 17, and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification and drawings of record do not support nonimagewise transferring the thin film onto laminate. There is no suggestion of nonimagewise transferring the thin-film layer in the current specification. Negative limitations recited to overcome prior art can be considered new matter. Furthermore, the mere absence of a positive recitation in the original specification is not basis for the exclusion of a feature. *Ex Parte Grasselli et al.* 231 USPQ 393. This new limitation constitutes new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1791

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 13, and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the term “nonimagewise”. There is no clarification in the current specification to provide a clear definition for the term “nonimagewise”. Examiner notes Figure 1 of the present application shows transferring onto a substrate. However, even the transfer onto the substrate is an imagewise transfer of a rectangle. How can a transfer coating be “nonimagewise”? This newly added limitation is indefinite. Clarification is required. For the purposes of examination, examiner assumes the term “nonimagewise transfer” means transfer onto the entire face of the substrate.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2, 4, 7-14, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0127877 to Shibata et al.

Art Unit: 1791

8. With respect to Claim 1, Shibata et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Shibata et al. discloses heating and pressing (See Paragraph 0062) a transfer material having an organic thin-layer (112) formed on a temporary support (111) and a first laminate comprising a substrate (101) and at least a transparent conductive layer or a rear-surface electrode (102) formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed thereon being intended to form a receiving surface (See Figure 2), thereby forming a laminate structure; peeling said temporary support from said laminate structure to nonimagewise transfer said organic thin-film layer to said receiving surface of said first laminate (See Paragraph 0062); and bonding a second laminate comprising a substrate and at least a rear-surface electrode or a transparent conductive layer (See paragraph 0002) formed on said substrate to said organic thin-film layer nonimagewise transferred onto said first laminate, wherein the heating is carried out by an infrared heater (See paragraph 0062).

9. As to Claim 2, Shibata et al. discloses transferring by heating and pressing (See paragraph 0062).

10. As to claim 4, Shibata et al. discloses the transfer material is formed by a wet method (See paragraph 0057).

11. As to claim 7, Shibata et al. discloses the organic thin-film layer contains at least a light-emitting, organic compound or a carrier-transporting, organic compound (See paragraph 0058).

Art Unit: 1791

12. As to claim 8, Shibata et al. discloses a hole-transporting, organic thin-film layer, a light-emitting, organic thin-film layer and an electron-transporting, organic thin-film layer are successively transferred (See paragraph 0044).

13. As to claim 9, Shibata et al. discloses at least one of said first substrate and said second substrate is provided with a transparent conductive layer (102).

14. As to claim 10, Shibata et al. discloses at least one of said temporary support and said substrate is in the form of a continuous web (See Figure 2).

15. As to claim 11, Shibata et al. discloses the substrate is made of at least one material selected from the group consisting of polyimides; polyesters; polycarbonates; polyether sulfone; metal foils such as aluminum foil, copper foil, stainless steel foil, gold foil, silver foil; plastic sheets of liquid crystal polymers; fluorine-containing polymers such as polytchloroziuroethylene), polytetrafluoroethylene, polytetrafluoroethylene-polyethylene copolymers (See paragraph 0072).

16. As to claim 12, Shibata et al. discloses a device formed from claim 1 (See paragraph 0002).

17. As to claim 13, Shibata et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Shibata et al. discloses heating and pressing (See paragraph 0062) a transfer material having an organic thin-layer (112) formed on a temporary support (111) and a first laminate comprising a substrate (101) and at least a transparent conductive layer or a rear-surface electrode (102) formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed

Art Unit: 1791

thereon being intended to form a receiving surface (See Figure 2), thereby forming a laminate structure; peeling said temporary support from said laminate structure to nonimagewise transfer said organic thin-film layer to said receiving surface of said first laminate (See paragraph 0062); and bonding a second laminate comprising a substrate and at least a rear-surface electrode or a transparent conductive layer (See paragraph 0002) on said substrate to said organic thin-film layer nonimagewise transferred onto said first laminate, wherein the heating is carried out by an infrared heater (See paragraph 0062).

18. As to claim 14, Shibata et al. discloses transferring by heating and pressing (See paragraph 0062).

19. As to claim 17, Shibata et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Shibata et al. discloses heating and pressing (See paragraph 0062) a transfer material having an organic thin-layer (112) formed on a temporary support (111) and a first laminate comprising a substrate (101) and at least a transparent conductive layer or a rear-surface electrode (102) formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed thereon being intended to form a receiving surface (See Figure 2), thereby forming a laminate structure; peeling said temporary support from said laminate structure to nonimagewise transfer said organic thin-film layer to said receiving surface of said first laminate (See paragraph 0062); and bonding a second laminate comprising a substrate and at least a rear-surface electrode or a transparent conductive layer (See paragraph

Art Unit: 1791

0002) formed on said substrate to said organic thin-film layer nonimagewise transferred onto said first laminate, wherein the heating is carried out by an infrared heater (See paragraph 0062).

20. As to claim 18, Shibata et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Shibata et al. discloses heating and pressing (See paragraph 0062) a transfer material having an organic thin-layer (112) formed on a temporary support (111) and a first laminate comprising a substrate (101) and at least a transparent conductive layer or a rear-surface electrode (102) formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed thereon being intended to form a receiving surface (See Figure 2), thereby forming a laminate structure; peeling said temporary support from said laminate structure to nonimagewise transfer said organic thin-film layer to said receiving surface of said first laminate (See paragraph 0062); and bonding a second laminate comprising a substrate and at least a rear-surface electrode or a transparent conductive layer (See paragraph 0002) formed on said substrate to said organic thin-film layer nonimagewise transferred onto said first laminate, wherein the heating is carried out by an infrared heater (See paragraph 0062).

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 1-2, 4-14, and 16-18 rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent No. 6,194,119 B1 to Wolk et al.

23. With respect to Claim 1, Wolk et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Wolk et al. discloses heating (column 4, lines 31-37) and pressing (column 7, lines 18-22) a transfer material having an organic thin-layer (column 2, lines 38-41) formed on a temporary support (column 1, line 66-column 2, line 5) and a first laminate comprising a substrate (column 19, lines 17-22) and at least a transparent conductive layer or a rear-surface electrode (column 19, lines 42-45) formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed thereon being intended to form a receiving surface (See Figure 5A), thereby forming a laminate structure; peeling said temporary support from said laminate structure to transfer said organic thin-film layer to said receiving surface of said first laminate (column 12, lines 9-13); and bonding a second laminate (column 12, lines 45-56) comprising a substrate (copper phthalocyanine, column 23, lines 41-42) and at least a rear-surface electrode or a transparent conductive layer (aluminum cathode, column 23, lines 44-45) formed on said substrate to said organic thin-film layer transferred onto said first laminate, wherein the heating is carried out by an infrared heater (column 32, line 15-column 24, line 22, column 12, lines 9-13, column 8, lines 38-40 and column 4, lines 31-37). Wolk et al. discloses the transfer can be

Art Unit: 1791

done according to any pattern, which is controlled by the amount of light exposure on the transfer material (column 4, lines 40-45). However, Wolk et al. does not specifically disclose the thin-film layer is nonimagewise transferred. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expose the entire surface of transfer material, effecting a nonimagewise transfer, according to the teachings of Wolk et al. The motivation would have been to apply a continuous coating onto a substrate, as desired for specific product requirements. One of ordinary skill in the art at the time the invention was made would have understood how to modify the pattern of exposure taught by Wolk et al. to transfer a nonimagewise coating to achieve the desired transfer pattern.

24. As to Claim 2, Wolk et al. discloses transferring by heating and pressing (column 7, lines 18-22).

25. As to claim 4, Wolk et al. discloses the transfer material is formed by a wet method (coating; column 5, lines 48-50).

26. As to claim 5, Wolk et al. discloses the second laminate has an organic thin-film layer formed on the rear-surface electrode (column 23, lines 47-49).

27. As to claim 6, Wolk et al. discloses the first laminate and second laminate have a thermal expansion coefficient of 20ppm/°C or less (column 19, lines 17-29, column 15, lines 48-59, column 32, line 15-column 24, line 22).

28. As to claim 7, Wolk et al. discloses the organic thin-film layer contains at least a light-emitting, organic compound or a carrier-transporting, organic compound (column 2, lines 37-41).

Art Unit: 1791

29. As to claim 8, Wolk et al. discloses a hole-transporting, organic thin-film layer, a light-emitting, organic thin-film layer and an electron-transporting, organic thin-film layer are successively transferred (column 15, lines 11-16, and column 16).

30. As to claim 9, Wolk et al. discloses at least one of said first substrate and said second substrate is provided with a transparent conductive layer (column 15, lines 40-43).

31. As to claim 10, Wolk et al. discloses at least one of said temporary support and said substrate is in the form of a continuous web (column 7, lines 9-11).

32. As to claim 11, Wolk et al. discloses the substrate is made of at least one material selected from the group consisting of polyimides; polyesters; polycarbonates; polyether sulfone; metal foils such as aluminum foil, copper foil, stainless steel foil, gold foil, silver foil; plastic sheets of liquid crystal polymers; fluorine-containing polymers such as polytchloroziuroethylene), polytetrafluoroethylene, polytetrafluoroethylene-polyethylene copolymers (column 19, lines 17-29).

33. As to claim 12, Wolk et al. discloses a device formed from claim 1 (column 15, line 55-column 16, line 22).

34. As to claim 13, Wolk et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Wolk et al. discloses heating (column 4, lines 31-37) and pressing (column 7, lines 18-22) a transfer material having an organic thin-layer (column 2, lines 38-41) formed on a temporary support (column 1, line 66-column 2, line 5) and a first laminate comprising a substrate (column 19, lines 17-22) and at least a transparent conductive layer or a rear-surface electrode (column 19, lines 42-45)

Art Unit: 1791

formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed thereon being intended to form a receiving surface (See Figure 5A), thereby forming a laminate structure; peeling said temporary support from said laminate structure to transfer said organic thin-film layer to said receiving surface of said first laminate (column 12, lines 9-13); and bonding a second laminate (column 12, lines 45-56) comprising a substrate (copper phthalocyanine, column 23, lines 41-42) and at least a rear-surface electrode or a transparent conductive layer (aluminum cathode, column 23, lines 44-45) formed on said substrate to said organic thin-film layer transferred onto said first laminate, wherein the heating is carried out by an infrared heater (column 32, line 15-column 24, line 22, column 12, lines 9-13, column 8, lines 38-40 and column 4, lines 31-37). Wolk et al. discloses the transfer can be done according to any pattern, which is controlled by the amount of light exposure on the transfer material (column 4, lines 40-45). However, Wolk et al. does not specifically disclose the thin-film layer is nonimagewise transferred. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expose the entire surface of transfer material, effecting a nonimagewise transfer, according to the teachings of Wolk et al. The motivation would have been to apply a continuous coating onto a substrate, as desired for specific product requirements. One of ordinary skill in the art at the time the invention was made would have understood how to modify the pattern of exposure taught by Wolk et al. to transfer a nonimagewise coating to achieve the desired transfer pattern.

Art Unit: 1791

35. As to claim 14, Wolk et al. discloses transferring by heating and pressing (column 7, lines 18-22).

36. As to claim 16, Wolk et al. discloses the second laminate has an organic thin-film layer formed on the rear-surface electrode (column 23, lines 47-49).

37. As to claim 17, Wolk et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Wolk et al. discloses heating (column 4, lines 31-37) and pressing (column 7, lines 18-22) a transfer material having an organic thin-layer (column 2, lines 38-41) formed on a temporary support (column 1, line 66-column 2, line 5) and a first laminate comprising a substrate (column 19, lines 17-22) and at least a transparent conductive layer or a rear-surface electrode (column 19, lines 42-45) formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed thereon being intended to form a receiving surface (See Figure 5A), thereby forming a laminate structure; peeling said temporary support from said laminate structure to transfer said organic thin-film layer to said receiving surface of said first laminate (column 12, lines 9-13); and bonding a second laminate (column 12, lines 45-56) comprising a substrate (copper phthalocyanine, column 23, lines 41-42) and at least a rear-surface electrode or a transparent conductive layer (aluminum cathode, column 23, lines 44-45) formed on said substrate to said organic thin-film layer transferred onto said first laminate, wherein the heating is carried out by an infrared heater (column 32, line 15-column 24, line 22, column 12, lines 9-13, column 8, lines 38-40 and column 4, lines 31-37). Wolk et al. discloses the transfer can be done

Art Unit: 1791

according to any pattern, which is controlled by the amount of light exposure on the transfer material (column 4, lines 40-45). However, Wolk et al. does not specifically disclose the thin-film layer is nonimagewise transferred. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expose the entire surface of transfer material, effecting a nonimagewise transfer, according to the teachings of Wolk et al. The motivation would have been to apply a continuous coating onto a substrate, as desired for specific product requirements. One of ordinary skill in the art at the time the invention was made would have understood how to modify the pattern of exposure taught by Wolk et al. to transfer a nonimagewise coating to achieve the desired transfer pattern.

38. As to claim 18, Wolk et al. discloses a method for thermal transfer for forming organic electroluminescent devices. Wolk et al. discloses heating (column 4, lines 31-37) and pressing (column 7, lines 18-22) a transfer material having an organic thin-layer (column 2, lines 38-41) formed on a temporary support (column 1, line 66-column 2, line 5) and a first laminate comprising a substrate (column 19, lines 17-22) and at least a transparent conductive layer or a rear-surface electrode (column 19, lines 42-45) formed on said substrate, which overlap each other such that said organic thin-film layer of said transfer material faces only the side of said substrate having said transparent conductive layer formed thereon being intended to form a receiving surface (See Figure 5A), thereby forming a laminate structure; peeling said temporary support from said laminate structure to transfer said organic thin-film layer to said receiving surface of said first laminate (column 12, lines 9-13); and bonding a second laminate (column 12, lines

Art Unit: 1791

45-56) comprising a substrate (copper phthalocyanine, column 23, lines 41-42) and at least a rear-surface electrode or a transparent conductive layer (aluminum cathode, column 23, lines 44-45) formed on said substrate to said organic thin-film layer transferred onto said first laminate, wherein the heating is carried out by an infrared heater (column 32, line 15-column 24, line 22, column 12, lines 9-13, column 8, lines 38-40 and column 4, lines 31-37). Wolk et al. discloses the transfer can be done according to any pattern, which is controlled by the amount of light exposure on the transfer material (column 4, lines 40-45). However, Wolk et al. does not specifically disclose the thin-film layer is nonimagewise transferred. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expose the entire surface of transfer material, effecting a nonimagewise transfer, according to the teachings of Wolk et al. The motivation would have been to apply a continuous coating onto a substrate, as desired for specific product requirements. One of ordinary skill in the art at the time the invention was made would have understood how to modify the pattern of exposure taught by Wolk et al. to transfer a nonimagewise coating to achieve the desired transfer pattern.

Response to Arguments

39. Applicant's arguments filed 12/21/07 have been fully considered but they are not persuasive.

40. Applicant primarily argues Wolk does not disclose nonimagewise transfer. As noted by examiner, it is unclear what is meant by the term "nonimagewise transfer".

Art Unit: 1791

Wolk's disclosure of transferring the thin film coating to achieve any desired pattern renders obvious the limitation of nonimagewise transferring, because one of ordinary skill in the art would have understood the transfer coating surface area is controlled by the amount of exposure on the transfer material. Exposing the entire surface of the transfer material would result in nonimagewise transfer.

41. Applicant also argues that Shibata does not transfer the second laminate comprising a substrate and a rear-surface electrode. Examiner disagrees. Paragraph 0089 of Shibata discloses "The transparent back side electrode may be a laminate composed of a thin layer of the above-mentioned material ... and a transparent conductive layer of ITO, IZO, etc." The ITO/IZO is the transparent electrode, while the "above mentioned material" (i.e. metal/metal oxide; See paragraph 0085) is the recited substrate. Therefore, Shibata reads on the currently claimed invention. The rejection is therefore maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY K. MCCLELLAND whose telephone number is (571)272-2372. The examiner can normally be reached on 8:00 a.m.-5 p.m. Mon-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. K. M./
Examiner, Art Unit 1791

KKM

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791